



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/616,225

07/10/2003

Hiroaki Momose

Q76505

2249

23373 7590 05/04/2007  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

MCLEAN, NEIL R

ART UNIT

PAPER NUMBER

2609

MAIL DATE

DELIVERY MODE

05/04/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/616,225	<b>Applicant(s)</b> MOMOSE ET AL.	
	<b>Examiner</b> Neil R. McLean	<b>Art Unit</b> 2609	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In claim 17, a "computer program" is being recited; however, computer program would reasonably be interpreted by one of ordinary skill in the art as software, per se. This subject matter is not limited to that which falls within a statutory category of invention because it is limited to a process, machine, manufacture, or a composition of matter. Software is a function descriptive material and a function descriptive material is non-statutory subject matter.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2609

4. Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Loveridge et al. (US Patent 7,068,853).

Loveridge et al. disclose an image regulation apparatus (Column 5, lines 5-7) that regulates an image, said image regulation apparatus comprising:

a. Regarding Claim 1

a transparency specification module (S2 in Figure 2) that specifies a degree of transparency;

a transparent range specification module (Column 5, lines 61-62) that specifies an arbitrary range of an image as a transparent range (S5 in Figure 4); and

a transparency setting module (S8 in Figures 2 and 3) that, in response to specification of the transparent range, sets a new degree of transparency for an image in the transparent range, based on a current setting of transparency for the image in the transparent range and the degree of transparency specified by said transparency specification module (Column 14, line 48-52).

b. Regarding Claim 2:

An image regulation apparatus in accordance with claim 1, wherein said transparency setting module selectively sets a lower degree of transparency between the specified degree of transparency and the current setting of

transparency, as the new degree of transparency for the image in the transparent range (Step S13 in Figure 4).

c. Regarding Claim 3:

An image regulation apparatus in accordance with claim 1, wherein said transparency setting module selectively sets a higher degree of transparency between the specified degree of transparency and the current setting of transparency, as the new degree of transparency for the image in the transparent range (Column 14, line 49).

d. Regarding Claim 4:

An image regulation apparatus in accordance with claim 1, wherein said transparency setting module comprises:

a first transparency setting sub-module that selectively sets a lower degree of transparency between the specified degree of transparency and the current setting of transparency, as the new degree of transparency for the image in the transparent range (Step S13 in Figure 4); and

a second transparency setting sub-module that selectively sets a higher degree of transparency between the specified degree of transparency and the current setting of transparency, as the new degree of transparency for the image in the transparent range (Column 14, line 49), said image regulation apparatus further comprising:

a selection module that selectively activates either of said first transparency setting sub-module and said second transparency setting sub-module (Column 6, lines 64-67).

e. Regarding Claim 5:

An image regulation apparatus in accordance with claim 1, wherein the degree of transparency is set for each pixel (Step S13 in Figure 4).

f. Regarding Claim 6:

An image regulation apparatus in accordance with claim 1, wherein said transparency specification module is capable of specifying multiple stages of transparency in a range of 0 to 100% (Column 6, lines 30-39).

g. Regarding Claim 7:

An image regulation apparatus in accordance with claim 1, wherein said transparent range specification module specifies two points to define the transparent range (Column 7, lines 58-67).

h. Regarding Claim 8:

An image regulation apparatus in accordance with claim 1, said image regulation apparatus being capable of regulate a layout of image areas in which images are displayed (Column 7, lines 55-57).

i. Regarding Claim 9:

An image regulation apparatus in accordance with claim 8, wherein one of the image areas is a frame image area, in which a frame image functioning as a frame of an arbitrary image is displayed (Column 11, lines 61-64).

j. Regarding Claim 10:

An image regulation method that regulates an image, said image regulation method comprising the steps of:

(a) specifying a degree of transparency (S2 in Figure 2);

(b) specifying an arbitrary range of an image as a transparent range (Column 5, lines 61-62); and

(c) in response to specification of the transparent range, setting a new degree of transparency for an image in the transparent range, based on a current setting of transparency for the image in the transparent range and the degree of transparency specified by said step (a) (S8 in Figures 2 and 3).

k. Regarding Claim 11:

An image regulation method in accordance with claim 10, wherein said step(c) selectively sets a lower degree of transparency between the specified degree of transparency and the current setting of transparency, as the new

degree of transparency for the image in the transparent range (Step S13 in Figure 4).

I. Regarding Claim 12:

An image regulation method in accordance with claim 10, wherein said step(c) selectively sets a higher degree of transparency between the specified degree of transparency and the current setting of transparency, as the new degree of transparency for the image in the transparent range (Column 14, line 49).

m. Regarding Claim 13:

An image regulation method in accordance with claim 10, wherein said step(c) comprises the steps of:

(c1) selectively setting a lower degree of transparency between the specified degree of transparency and the current setting of transparency, as the new degree of transparency for the image in the transparent range (Column 14, line 48); and

(c2) selectively setting a higher degree of transparency between the specified degree of transparency and the current setting of transparency, as the new degree of transparency for the image in the transparent range, said image regulation method further comprising the step of (Column 14, line 49):



(d) prior to said step(c), selectively activating either of setting by said step(c1) and setting by said step(c2) (Column 14, lines 50-53).

n. Regarding Claim 14:

An image regulation method in accordance with claim 10, wherein the degree of transparency is set for each pixel (Step S13 in Figure 4).

o. Regarding Claim 15:

An image regulation method in accordance with claim 10, wherein said step(a) is capable of specifying multiple stages of transparency in a range of 0 to 100% (Column 6, line 33).

p. Regarding Claim 16:

An image regulation method in accordance with claim 10, wherein said step(a) specifies two points to define the transparent range (Column 7, lines 58-67).

q. Regarding Claim 17:

A storage medium that stores therein a computer program used to regulate an image, said computer program comprising:

a module that, in response to specification of a degree of transparency and an arbitrary range of an image as a transparent range (S2 in Figure 2), sets

a new degree of transparency for an image in the transparent range (Column 5, lines 61-62);, based on a current setting of transparency for the image in the transparent range and the specified degree of transparency (S8 in Figures 2 and 3).

### ***Conclusion***

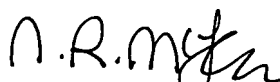
2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Blake et al. (US Patent 6,741,755) discloses system is provided for selecting a foreground region of an image, given a set of pixels defining the boundary of the foreground region of the image. The system includes a component to dilate the pixel set and a component to determine a foreground value (F) and to determine an opacity value (a) based on estimated foreground and background values for each pixel of the dilated set to facilitate a separation of the region from background portions of the image

Art Unit: 2609

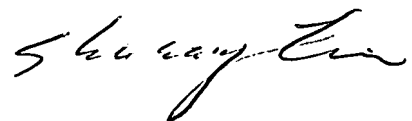
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. McLean whose telephone number is 571.270.1679. The examiner can normally be reached on Monday through Friday 7:30AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Liu Shuwang can be reached on 571.272.3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Neil R. McLean  
4/30/2007



SHUWANG LIU  
SUPERVISORY PATENT EXAMINER